High Performance Computing Software

JPL Internal Seminar Series

How High Performance Concepts Sneak into Conventional Computers - A case study

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Thursday, June 5, 2003
12:00 noon – 1:00 p.m.
Building 126, Room 225

This talk arises out of getting the assignment of doing some glue software between two kinds of complex components of a DSN (Deep Space Network) subsystem.

This subsystem provides a new radiometric data type to the navigators of interplanetary spacecraft. The data type as well as the subsystem is called delta-dor.

We will give an overview of delta-dor and its benefits. You will also get a brief explanation of what each of the two kind of complex components do and where in the world they exist.

We will define what we mean by the glue software.

Then we get to the heart of the talk and explain how the following five features work:

1) Self synchronization
2) Parallelization
3) Restart
4) Automatic Configuration
5) Fault Tolerance

We conclude with an apology that we called all these features “high performance”, when only one is.

For questions, please contact Hans Zima at 4-8980.